justify their concern but after a more intensive search and the watching of some of them as they alighted, I was eventually able to find three clutches c/2, c/1, and 4/1. It was evident that the members of this colony were only just commencing to lay and some of them were still engaged in choosing egg-sites.

Again there were no attempts at nests, the eggs in every case being laid on the bare coral sand, in very slight scrapes or, more truly, in smoothed circles of $1\frac{1}{2}$ to 2 inches in diameter. The eggs themselves were very similar to those of the other two colonies.

The general breeding behaviour of the Blacknaped Tern, when nesting, appears to conform very closely to the normal behaviour pattern of the Sternidae; numbers fly out to meet the intruder on his approach to the breeding territory, circle screaming overhead throughout his stay, and quickly resettle themselves on their eggs or alight on coral knobs on his withdrawal. The voice of this tern is, however, less loud and harsh than in the majority of the family.

c/o R.A.F. Gan, c/o Air Movements, Katunayake, Ceylon, August 8, 1958.

W. W. A. PHILLIPS

[The overall breeding range of the species Sterna sumatrana Raffles is islands in the Indian Ocean and western Pacific, north to the China Sea, south to New Caledonia. Within Indian limits the typical race (Burma, Malaysia) breeds in the Andaman and Nicobar Islands. The range of the race mathewsi (described from the Aldabra Islands north of Madagascar) is given as islands of the western Indian Ocean from the Seychelles, Amirante and Aldabra Islands, east to the Chagos Islands. The race occurring in the Maldives had remained undetermined until specimens were collected recently by Major Phillips (JBNHS 55: 211).—Eds.]

13. THE PRESENT STATUS OF THE WHITEWINGED WOOD DUCK, CAIRINA SCUTULATA (S. MÜLLER)

(With a plate)

At its inaugural session at Mysore in 1952, the Indian Board for Wild Life placed two ducks of north-east India on the special Protected List. These two were the Pinkheaded Duck (*Rhodonessa caryophyllacea*) and the Whitewinged Wood Duck (*Cairina scutulata*).

Even at that time it was feared that the Pinkheaded Duck, of which there has been no really authentic report for a number of years, had become extinct.

What of the status of the Whitewinged Wood Duck? I have been trying to collect information on this interesting bird which appears to be found only in Assam (as far as India is concerned), Burma, Malaya, and Indonesia. In Assam it is rarer in the districts of Goalpara, Kamrup, and Darrang; less rare in parts of Nowgong and Sibsagar; and more frequently found in Lakhimpur and Luhit Frontier Division (Sadiya), and possibly Cachar. For field identification it is a black and dark brown duck of large size, with spotted black and white neck, and with conspicuous white patches on the wings. It is not to be confused with the Nukta or Comb Duck (Sarkidiornis melanotos) of which the body is white below and of which the drake has a conspicuous knob or comb at the base of its bill.

A resident and non-migratory species, the Whitewinged Wood Duck frequents patches of water and long still pools of rivers in thick forests away from human habitation, especially near the foothills. Sometimes they are found in small parties of about six or less, but usually they go about singly or in pairs. During the heat of the day they generally remain in the shade of a tree, either on the water or on a branch. Therefore early morning and evening are the times when they are to be seen.

They nest in trees, either in holes of trees, or in large nests of sticks and rubbish in a fork of a tree or in a mass of branches. May to August is believed to be the time that breeding takes place. Some people say that these birds make a nest of grass etc. in scrubjungle near water.

In 1913 J. C. Higgins mentioned this duck as being common in Upper Chindwin District of Burma, and comparatively so in Upper Assam. He saw three of them in Manipur on one occasion only. In 1915 H. Stevens met this duck near the Dibru River in Lakhimpur District, and near the Dejoo River in North Lakhimpur, and reported its call as being an unmistakable long drawn 'honk'.

Stuart Baker recorded in 1921 that he had found a great many of these ducks in Sadiya, and reported their presence in fair numbers in parts of Lakhimpur District, and refers to a few which had been seen or shot in other parts of Assam. In 1947 Sálim Ali and Dillon Ripley wrote: 'A pair were seen at Tezu and near Brahmakund in January. They haunt the jungle-grown streams and do not usually come out on to the broad gravel banks of the Lohit'.



Whitewinged Wood Ducks in captivity, about four months old



Adult bird in Alipore Zoological Garden, Calcutta

Photos: E. P. Gee



Early in 1956 I drew up and sent out a questionnaire (given at the end of this note) on the Whitewinged Wood Duck to a number of Forest Officers and tea planter sportsmen in order to find out the present status of this rare and interesting bird. I am grateful to the following persons who responded to this questionnaire and supplied me with interesting information: Frank Nicholls, H. K. Dodwell, J. R. Clayton, C. G. Allen, E. D. Hooper, C. D. Hopper, and the Director of Forests, N.E.F.A.

A pair or two of these ducks are reported to be now resident in the Behali Reserved Forest in the north of Darrang District. In the bheels and other pieces of water of the Ranga Reserved Forest, west of North Lakhimpur town, there are a few pairs. A fair number exist in the Phillobari area east of Doom Dooma town. They are to be found in all the streams running through the Dibru Reserved Forest. Occasionally a single bird or a pair is found in the forest near Digboi. I myself recently saw a pair on a long still pool of the Kaliani River in the Mikir Hills.

Though no news is at present available from many parts of north-east Assam and Cachar and though the little information available is sketchy, what has been found out so far is not altogether discouraging. Much more information is required from many more people, after which it will be possible to draw a more complete picture of the situation. The consensus of opinion of my informants so far is that this duck has become much rarer than it was fifteen to twenty years ago, chiefly due to its habitat gradually becoming opened up by deforestation and cultivation.

The Whitewinged Wood Duck appears generally to roost during the heat of the day on shady branches of trees low down near the water, coming out to feed in the evening and feeding all night. It is seen sometimes in the early morning before it retires. When encountered on the water, it is not particularly wary. In fact some correspondents consider it 'foolishly unwary'. It advertises its approach when flying and its presence when feeding by its loudly repeated call.

As to their enemies, apart from man with his deforestation and extending cultivation, Frank Nicholls reports that he has personally twice seen these ducks attacked by hawks while flying. One, he says, was actually struck down into the reeds, but later managed to fly away. This correspondent has also seen a large water monitor (Varanus salvator) swimming about in a bheel frequented by Whitewinged Wood Duck, and actually saw this lizard take a moorhen and even attack a cormorant.

I find that many people, even sportsmen who shoot regularly, are not aware of the identity of this duck. Although it is clearly

stated in gun licences in Assam that the Pinkheaded Duck and the Whitewinged Wood Duck are closed to shooting for the whole year and although it is not good eating, people shoot it or at it without knowing that it is a fully protected bird. This proves the need for wide publicity about this rare and vanishing species, so that everyone including the villagers in the forests will be able to assist in protecting it.

In my paper 'The Function of Zoological Gardens in the Preservation of Wild Life' [IBNHS 53 (1): 84] I wrote: 'The Whitewinged Wood Duck of north-east India, recently placed by the Indian Board for Wild Life on the list of birds proposed to be totally protected, is known to thrive in captivity: here is another opportunity of saving from extermination a species before it goes the way of the Pinkheaded Duck'. I am convinced that an effort should be made to keep and breed this duck in captivity in India.

I note that Stuart Baker in his INDIAN DUCKS AND THEIR ALLIES states: 'They are charming birds in captivity, and are tamed without the slightest difficulty. When the breeding season approaches, they, if not confined or pinioned, fly away; but throughout the cold weather months they may be allowed to wander about at their own discretion, and will always keep near home if regularly fed. When thus domesticated it is a curious fact that they never seem to use their wings as a means of locomotion, but will walk very long distances to and from water. A duck belonging to a planter whose house was nearly half a mile from water invariably walked there and back every evening, returning to the house for the hot hours of the day and for the night. This particular duck was the object of a wild infatuation on the part of a small domestic drake, who followed her about wherever she went, and as the Wood Duck could walk at, at least, thrice the rate the drake could, he eventually succumbed to sheer exhaustion and want of time to feed in. She, however, totally ignored all his advances, and in April flew away to find a wild mate.

'They are very impatient of heat, and the birds in my aviary always retired indoors as soon as the sun was up, and even in the cold weather they always kept under cover from 10 a.m. to 2 p.m. Those I sent down to the Calcutta Zoo died very quickly, except one fine drake, who lived about eighteen months before dying of the same disease which carried off the rest—an affection of the stomach.

'My birds were practically omnivorous, but would touch no dead' animal food. Every other day a pail-full of small fishes was emptied into their tank, and by nightfall these were generally all accounted for; but any that died during this period were never eaten. In the

same way, worms that ceased to struggle were discarded, and grasshoppers, frogs and snails would only be taken if alive.

'They ate paddy and husked rice freely, and I have kept birds for some weeks on this alone, and they kept fat and well upon it, but, at the same time, when they were offered animal food they preferred it to the grain. Green food of all sorts they refused unless very hungry, and I could never induce them to eat any sort of water weed, though one would expect them to eat such in a wild state.

'They were extremely expert in catching fish; as a rule, they skimmed along the top of the water with the head and neck immersed, but when necessary would dive and chase the fish under water. Of course, their speed when doing so was not comparable to that of cormorants, or the diving ducks under the same circumstances, but it was sufficient to ensure the capture of almost any fish. They are very mild, well-behaved birds, and not, as a class, at all quarrelsome. Some tiny whistling teal shared their captivity, and were always treated with consideration and allowed their share of food, etc. As already said, they very soon become tame, and within a few weeks they were all tame enough to accept food from the hands of those they knew well; but generally when strangers appeared they retired to their inner room. When not feeding, they almost invariably sat on the perches and not on the ground, and they showed considerable activity in turning about on them; at the same time they kept their position almost entirely by balance and not grasp, as anything touching them at once upset them.'

Peter Scott, Honorary Director of the Severn Wildfowl Trust in Britain, wrote to me in September 1956 of the Whitewinged Wood Duck: 'We already have seven and they seem quite hardy. One lived out in England all through the war. They have not bred in England but a pair bred successfully in Holland in 1938; we are, therefore confidently expecting to breed them. We have only three females.'

Several persons in Assam have succeeded in rearing and keeping these ducks in captivity. From Towkok Mrs. Whyte wrote to me in 1955: 'These birds nest on our golf course every year. We hear their weird call long before we see them flying over the fairway in the late afternoon towards their nest. My husband picked this one up wounded and looked after it until it recovered. By that time it had grown quite tame so he kept it in a *pucca* pool in the compound. For company he put in a Muscovy Duck with it. The pair got on very well together apparently. However, one morning when he looked at them they were perfectly all right, two hours later he found the Wood Duck dead. We both think that the Muscovy was responsible.'